

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDEUP0Q2U0

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Euphorbia macropus* (Klotzsch & Garcke) Boiss.

COMMON NAME: Woodland Spurge, Huachuca Mountain Spurge, Plummer's Spurge

SYNONYMS: *Euphorbia plummerae* S. Watson; *Anisophyllum macropus* Klotzsch & Garcke

FAMILY: Euphorbiaceae

AUTHOR, PLACE OF PUBLICATION: *Euphorbia macropus* (Klotzsch & Garcke) Boiss, Prodromus Systematis Naturalis Regni Vegetabilis 15(2): 52. 1862. *Anisophyllum macropus* Klotzsch & Garcke, Abh. Konigl. Akad. Wiss. Berlin 1859: 33. 1860.

TYPE LOCALITY: USA, Arizona, Cochise County, Huachuca Mountains. Possible type in GH (47725) states "...Tanner's Canyon, Huachuca Mountains."

TYPE SPECIMEN: HT: ? J.G. Lemmon 2874 with W.P. Lemmon, 21 July 1882. Possible Type GH-47725. IT: US-58626.

TAXONOMIC UNIQUENESS: In 1980, Michael Huft at the Missouri Botanical Garden annotated one specimen to *E. macropus*, but not all specimens. Steve McLaughlin and Phil Jenkins think *E. plummerae* is a bad species; neither can find any differences between *E. plummerae* and *E. macropus* (Date Unknown). *E. macropus* is 1 of 90 species in the genus *Euphorbia*.

DESCRIPTION: A small herbaceous perennial with slender, weak stems and milky sap arising from a small woody tuber 1-2 cm diameter. Small plants have an unbranched erect stem 5-10 cm (2-4 in) tall. Stems larger than 10-15 cm (4-6 in) generally fall over and may have two or three prostrate branches. Leaves are opposite, ovate and entire; 1 cm long x 0.5 cm wide. Foliage glabrous throughout. Flowers in August and September, with tiny white petaloid appendages on the involucre. The fruits dehisce while still on the plant leaving the central stipe of the capsule persistent on the plant.

AIDS TO IDENTIFICATION: This is the only *Euphorbia* in the area with a woody tuber. The slender, sparsely branched growth form is also more delicate than most other *Euphorbias* in southern Arizona. This species is very difficult to survey for in the field. Its slender growth form, inconspicuous leaf shape and small size make it very cryptic among the other herbaceous understory species with which it grows. *Euphorbia bilobata* is in the area but does not have a woody tuber.

ILLUSTRATIONS:

TOTAL RANGE: Southern Arizona, to Chihuahua and Sonora, Mexico.

RANGE WITHIN ARIZONA: Huachuca Mountains, Cochise County, and the south end of Patagonia Mountains, Santa Cruz County. The largest known population is on Fort Huachuca.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial.

PHENOLOGY: Flowers August - September.

BIOLOGY:

HABITAT: Shady canyon bottoms in leaf litter, and open hillsides in pine-oak woodland. In Mexico observed in Riparian habitat: fir-alder along river in Chihuahua (SEINet, accessed 2005).

ELEVATION: 2,140 – 7,425 feet (652-2263 m). Arizona collections in SEINet (accessed 2005) ranged between 5,200-7,250 ft (1586-2211 m). In Mexico, collected from 1700-2000 m (5,574-6,557 ft) [SEINet, accessed 2005].

EXPOSURE: Rocky NW-facing slope.

SUBSTRATE: Alluvium.

PLANT COMMUNITY: Oak woodland. Associated species in Arizona include: *Arbutus arizonica* (Arizona Madrone), *Cercocarpus* (mountain-mahogany), *Ipomoea tenuiloba* var. *lemmonii* (spiderleaf), *Juniperus deppeana* (Alligator juniper), *Pinus cembroides* (Mexican pinyon), *P. chihuahuana* (= *P. leiophylla* var. *chihuahuana*, Chihuahuan pine), *P. discolor* (border pinyon), *P. engelmannii* (Engelmann pine), *P. ponderosa* (Ponderosa pine), *P. strobiformis* (Southwestern white pine), *Piptochaetium fimbriatum* (pinyon false-ricegrass), *Pseudotsuga menziesii* (Douglas-fir), *Quercus arizonica* (Arizona oak), *Q. hypoleucoides* (silver-leaf oak), *Q. rugosa* (net-leaf oak), and *Rhus trilobata* (sumac). (SEINet, accessed 2005).

POPULATION TRENDS: Apparently stable on monitoring plot in Finley and Adams Canyon, Patagonia Mountains. When collected in 1989 by F.W. Reichenbacher (ARIZ-290375) in the Huachuca Mountains, he noted one population that was uncommon locally with only 5 plants in the population, while another collection (ARIZ-290378) in the same year was noted to be “Common in partially shaded areas among shrubs and grasses.”

SPECIES PROTECTION AND CONSERVATION

- ENDANGERED SPECIES ACT STATUS:** None (USDI, FWS 1996)
[Category 2, 1992 USFWS Region 2 List]
[Category 2, USDI, FWS 1990]
- STATE STATUS:** Salvage Restricted under *E. plummerae*
(ARS, ANPL 1999)
[Salvage Restricted under *E. plummerae*
(ARS, ANPL 1993)]
- OTHER STATUS:** Not Sensitive (USFS Region 3 1999)
[Forest Service Sensitive, USFS Region 3
1990]
- MANAGEMENT FACTORS:** Rarity; vulnerable habitat. Occupies canyon bottom habitat that is vulnerable to disturbance such as road building, grazing, watershed deterioration.
- CONSERVATION MEASURES TAKEN:** Monitoring plots established by the Coronado National Forest and The Nature Conservancy in the Patagonia Mountains.
- SUGGESTED PROJECTS:** Follow up on taxonomic questions.
- LAND MANAGEMENT/OWNERSHIP:** DOD - Fort Huachuca Military Reservation; USFS - Coronado National Forest; Private.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

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- Warren, P.L. and F.W. Reichenbacher. 1991. Sensitive plant survey of Fort Huachuca, Arizona. Report for U.S. Army, Fort Huachuca, Arizona.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

Steve McLaughlin - University of Arizona, Office of Arid Lands Studies, Tucson.
Frank Reichenbacher - Southwestern Field Biologists, Tucson, Arizona.
Phil Jenkins - Southwestern Field Biologists, Tucson

ADDITIONAL INFORMATION:

Jack Kaiser (USDA, retired): species occurs in Tanner Canyon, Huachuca Mountains (type locality) and south end of Patagonia Mountains.

McLaughlin: He and Jan Bowers have found it to be abundant at several sites in the Huachuca Mountains.

Phil Jenkins: He has found it at several locations in southeastern Sonora during 1990-91.

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